

**Federal-State Market Improvement Grant
Proposal
Final Report**

**Farm to Restaurant Marketing Study:
Opportunities for the Newcomer Community to
Participate in Restaurant-Supported Agriculture**

Submitted by the The Center for Family, Work, and Community and
The Lowell Center for Sustainable Production, University of
Massachusetts Lowell

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The goal of this project was to carry out a marketing study to identify strategies for bringing together ethnic restaurateurs in the Lowell area with immigrant and other farmers in the region. The marketing study assessed the viability of addressing the unmet needs of the many ethnic restaurants in Lowell to obtain their specialty food produce locally. The study also investigated interest in composting as a way to cycle nutrients from farm to restaurant and back to the farm.

This marketing study is actually Phase I of a two-phase project. The goal of Phase I was to complete a marketing analysis of the viability of bringing farmers and local ethnic restaurant owners together in a supply-demand relationship focused on specialty foods. Part II of the project will involve seeking funding from foundations for a two-year project that will cover two growing seasons.

Outline of the Issue or Problem

The Merrimack Valley region of northern Massachusetts has changed dramatically in the last decade. Two changes are of note. First, the immigrant and refugee population has grown significantly. Lowell's 100,000 residents now include the second largest Cambodian community in the country (estimated at about 20,000) and there are growing communities of Africans, Brazilians, Laotians, and Latinos. In addition, sprawl is an increasing concern and the Merrimack Valley is in danger of losing much of its farmland to urban growth and development. Farmers need to be able to grow high-profit crops if they are to remain viable.

Five key factors/needs make the Merrimack Valley an important place in which to do a marketing study that could have benefits for other parts of the United States:

1. Need for unique specialty foods: Foods are often the basis for new economic enterprises as Lowell's immigrant and refugee communities open a broad array of Cambodian, Brazilian, Laotian, Chinese, Latino, Portuguese, Indian, Haitian, and Latino establishments. Many of these ethnic food services use specialty vegetables, grains, and meats that are expensive and difficult to acquire with consistency because they must be imported. The restaurant owners report that they are interested in buying locally but that these foods must be high quality.
2. Need for reasonable prices because these are not high-end restaurants: Many farmer coops and other ventures address the issue of cost by marketing to high-end restaurants. Our goal is to find ways to make specialty foods available to ethnic restaurants that market to the refugee and immigrant communities.
3. Need to overcome problems of Merrimack Valley's short growing season: New England's short growing season continues to be regarded as a barrier by ethnic restaurant owners who must have a year-round supply of food stuffs. Addressing this linkage challenge will be important.
4. Need to overcome the problems of Merrimack Valley's growing waste problem: Lowell's businesses—including restaurants—are facing rapidly increasing waste costs because of the closure of many dumps. These businesses generate significant amounts of organic wastes,

most of which must be handled by the municipal wastewater treatment facility or the regional landfill.

5. Need to involve consumers and communities in the local food cycle. In spite of being surrounded by farms, most of the foods consumed here are imported from far away. Urban consumers, especially youth, feel disconnected from the local land. Existing programs for community-supported agriculture and farmer-chef networks usually focus on up-scale consumers and restaurants, ignoring many of the potential participants.

Along with these needs are many opportunities. Lowell's location in a valley of many small farmers offers an opportunity to produce specialty vegetables at local farms. In addition, Lowell's canals and brownfield sites offer an excellent opportunity to begin medium-scale fish farming. Under the right conditions, the cultivation, harvesting, preparation, and presentation of special ethnic foods could be a high value-added, skill-based industry for which many area newcomers are already well prepared. Indeed, an economic initiative around ethnic foods offers the possibility for both jobs and cultural celebration.

The Merrimack Valley's farmers, which include active organic farms and community gardens selling through farmers' markets, pre-purchase vegetable-buying collectives, and area supermarkets, are mainly small operators focusing on specialty crops. These small farms are very sensitive to consumer interests and values—they must be to remain competitive. The Merrimack Valley presents a unique opportunity to build linkages between these local farm operators and newcomer entrepreneurs interested in food services. These linkages will benefit farmers interested in new markets and Lowell food service operators interested in less expensive and readily available specialty food services.

There is also an opportunity to restructure the current one-way, linear flow of food materials through the food service industry into a more cyclical loop that composts food waste and returns organic nutrients to valley farms. This would reduce the municipal waste load and enhance the region's farm soils. Composting organic wastes and returning the materials as soil amendments is often a well-recognized practice in the countries from which Lowell's newcomers originate.

Approach and Accomplishments of this Project

The main deliverable of this project is a marketing study with information that would support local farmers in growing specialty vegetables for the ethnic market while at the same time enabling local restaurants and other consumers to afford to buy these foods.

Much of the work of this project involved creating, testing, conducting, and analyzing surveys of farmers and restaurant owners. Details of the surveys and the results are in the attached report "The Food Cycle" prepared by Brett Romanoski.

Project staff met or spoke with 19 farmers in the greater Lowell region. This includes 6 "New Entry" farmers who are Cambodian farmers who lease their land as they learn appropriate farming methods for this geographical region. A number of the 19 farmers are not well acquainted with marketing possibilities and are uncertain about how to reach out to develop new marketing niches. Specific findings from the farmer survey include:

- The most common items they grow are tomatoes, corn, squash, and lettuce.
- Of the 19 farmers, 14 have only one way to sell to their customers. These may be farm stands, farmers markets, ethnic markets and supermarkets.
- Most of the farmers (68%) said that they are interested in selling to new markets.
- Most of the farmers (55%) said that the weather is the most important challenge they face. The short growing season is clearly an issue in this region.
- Most of the farmers (66%) are interested in selling crops that grow quickly to local restaurants

Project staff also met or spoke with 22 restaurant owners, representing Brazilian, Cambodian, Laotian, Puerto Rican, Portuguese, Vietnamese, Thai, Chinese, Mexican, and other ethnic groups. Most of them make food from Southeast Asia or Latin America. The majority of the restaurant owners are also interested in participating in the project. Among the restaurant owners, 100% said that they are satisfied with their current produce suppliers.

Highlights from the restaurant survey include:

- Most of them (76%) buy their produce from wholesalers in Boston, Quincy, or Chelsea. Some buy from local ethnic markets. Almost everyone buys the same thing every week. They said that they are happy with who they buy from and the freshness of the produce they buy but some (11%) said that it is sometimes hard to find specific produce they want.
- The most important things they want in produce are quality and freshness (58%) followed by price (23%), and reliability and closeness to supplier.
- Most (73%) said that they would like to do business with suppliers closer to their restaurants.
- Most (75%) said that they would like to buy from a farmer if quality, freshness, reliability, and decreased delivery time were guaranteed.
- Over half (52%) said that that they might be willing to pay more if they could be assured of quality, freshness, reliability, and decreased delivery time. However, a little less than half (47%) said they would not be willing to pay more.
- Most (58%) said that it is important to support local agriculture.
- Most (58%) are already sorting food waste from other types of trash and 58% are interested in learning about composting.

So, both farmers and restaurant owners are interested in seeing how they might be able to work together to support local agriculture and restaurants. The price of produce is an issue for the restaurants but it is not the only issue. Quality, freshness, and reliability are also important.

Aside from the marketing study, other specific deliverables included:

- A list of products and specialty foods that can be marketed to local restaurants and food specialty shops.
- A cost analysis of products at local restaurants and food specialty shops to determine the pricing range for local market viability.
- A survey of regional growers to determine the skill and interest level to supply specialty foods.

- A model for linking growers and commercial consumers of produce that will increase the demand for locally grown products.
- A farmer/restaurant meeting to discuss the implementation of this endeavor

Progress in each of these areas is discussed below.

List of Products and Specialty Foods

As part of the marketing study, restaurant owners were asked to identify produce and herbs they normally buy. Subsequent discussions with the New Entry Farmers revealed a few more types of produce they were growing and these were added to the list. The list can be found in Appendix E.

Cost Analysis of Products

Developing an accurate cost analysis of products at local restaurants was a challenging effort. Most of the immigrant restaurants and food specialty shops studied are owned and operated by members of the Asian community. Most owners were reluctant to share information about product costs because it is common in the Asian community to view this information as confidential. They fear that competitors and/or government agencies could use this information to harm their businesses. It was therefore difficult for us to obtain accurate information regarding costs of products. The minimal information that we were able to obtain for some products is shown in Appendix B.

Discussions with local farmers indicated only limited local market viability for their products in Asian and other ethnic restaurants. These farmers said that they were selling their produce for higher prices than what typical mom and pop ethnic restaurants pay.

On the other hand, an examination of the prices of products sold by Asian farmers from the U.S.D.A. New Entry Sustainable Farming Project showed that they were selling their produce for lower prices than other farmers. These prices were in the range of the prices paid by the ethnic restaurants that were willing to provide this information. It could be speculated that these farmers were willing to sell for less because they do not have well-established markets or they have lower overhead. (All of these farmers have full-time jobs off the farm.)

Survey of Regional Growers

The survey and analysis of the results can be found in Appendix A.

A Model for Linking Growers and Commercial Consumers

Immigrant businesses depend on the relationships and networks they develop. The model developed for this project fits in with immigrant culture. It requires repeated meetings and multiple contacts before business relationships can be established. This model can be found at the end of this report in Appendix C.

Farmer/Restaurant Owner Meeting

A meeting of farmers and restaurant owners to discuss the implementation of this endeavor was held in November, 2002. Scheduling this meeting was not easy. Conflicting schedules and time

demands of farmers and restaurant owners proved to be more difficult than we had anticipated. In the end, four restaurant owners were able to attend along with one farmer.

Highlights from the discussion include the conclusion that price is certainly an issue for many restaurant owners but there are other issues that may be equally or more important. One of the restaurant owners, for example, believes that education is even more important than price. That is, price is of primary importance when there is of lack of education about what is available and why it is advantageous to buy locally. For example, certain products, even if the initial cost is higher, will be fresher and have a longer shelf life if bought locally.

Another issue concerns building relationships between restaurant owners and farmers. The restaurants need to see the quality and be assured of dependability of before they can make a long-term commitment to buy from that farmer.

Strategies were suggested that would extend the growing season. Kale, for example, does well until frost. Techniques such as hoop houses can also be employed to preserve heat for the crops.

It was agreed that getting produce from farm to restaurants is challenging. Restaurant owners and farmers both see that as a difficulty. There are examples both of restaurant owners going to pick up crops and farmers delivering to restaurants. It may be that these arrangements will need to be created through individual relationships and networks.

Recommendations for next steps included developing a “buy local” campaign targeted to ethnic communities and developing a directory of local farms listing the produce they grow and a listing of restaurants that buy local produce.

It was also suggested that there be another level of research and information, including more details on pricing, markets, purchasing practices, and strategic marketing plans.

Building on the local farmers markets in Lowell and surrounding communities was an important recommendation. It was suggested that these farmers markets could include more of an educational component including information about the local crops and even cooking demonstrations. “Try it-you’ll like” is a well-known and successful marketing approach.

Project Objectives

In addition to the deliverables, the project proposal laid out seven objectives for this project. The seven objectives and related results and findings are as follows:

1. To further identify the types and quantities of products and specialty foods (such as pea tendrils, Thai basil, and cilantro) that can be marketed to local restaurants and food specialty shops.

Restaurant owners were asked to list products they would like to be able to buy locally and farmers were asked to list what they grow. The results are compiled in the attached marketing study.

2. To further assess costs that are within the means of local restaurants.
Please refer to Marketing Study, Appendix A, and Cost Analysis, Appendix B.

3. To confirm interest and skill on the part of various regional growers to supply specialty foods.

The marketing study showed that local farmers are interested in finding out about new markets and a number of them are also willing to grow new types of crops if they know there is a market.

4. To explore ways in which the nutrient cycle concept could be used to support these efforts.
For example, composting of restaurant waste could be used to make fertilizer for the farms and gardens.

The marketing study showed that the majority of restaurant owners are interested in learning more about composting their food waste. Among the farmers, there were a number currently composting their own food waste and one in particular was very interested in accepting food waste from area restaurants. They saw restaurant food waste as an important source of natural fertilizer.

5. To explore the feasibility and develop a strategy to link the UML Composting Project with on-farm composting.

A business plan has been developed as part of the UML Composting Project. The plan includes making links with area farms in order to expand on-farm composting. The business plan indicates that it would be quite feasible to expand on-farm composting. As a key component of this strategy the university would divert food and other organic wastes to area farms for composting. In addition, other large institutions such as hospitals, nursing homes, high schools and supermarkets would supply food waste to these farms. Consequently, the UML Composting Project would help create a plentiful supply of natural fertilizer through these on-farm composting activities.

6. To increase the base of marketing information and options for small-scale, limited-resource farmers that will help improve their ability to enter ethnically diverse urban markets such as Lowell.

See attached results of marketing study and appendix B.

7. To involve community organizations in the project so that community youth and other residents participate in and understand the importance of food growing and nutrient cycling. The project linked up with Community Teamwork 's weekly Farmers' Market Initiative. This provided an excellent forum for interacting with areas farmers and consumers of local produce. In addition, the project encouraged a local environmental youth group, the River Ambassadors, to connect their research efforts with immigrant foods and cooking methods though their New Ventures Project. This environmental youth group is planning on making a series of presentations to the community on the importance of food growing and nutrient cycling.

Contribution of Public or Private Agency Cooperators

The main cooperators with us on this project have been personnel from the New Entry Sustainable Farming Project (NESFP), sponsored by the US Department of Agriculture. This is a partnership effort designed to help recent immigrants with a background in farming to establish themselves as commercial farmers in New England. Sophy Roth Sun of the Farm Services Administration of the US Department of Agriculture was especially helpful. He accompanied project staff on several visits to local restaurants. He also led the project team on a tour of the Cambodian farms at White Gate Farm, a local site of the New Entry Sustainable Farming Project. His ability to help navigate the cultural barriers with Cambodian restaurant owners and farmers was extremely valuable.

Whitney Carpenter, marketing coordinator for the NESFP, also played an important role. He met with the project on several occasions, accompanied the team on several farm visits, and served as a liaison between the two projects. His knowledge of the existing markets for the crops of the New Entry Farming Project was quite useful. He also helped with the names of local crops and provided lists of crop prices. He has continued to stay in contact with the project as we discuss our next steps.

Further, several members of the NESFP attended the farmer-restaurant meeting in November. These included Hugh Joseph from Tufts University, The NESFP staff appear interested in discussing future areas of collaboration on this project.

Mary Jordan and David Webber of the Massachusetts Department of Food and Agriculture met with the project to discuss and advise on our strategies. They gave the project information about farm-to-restaurant initiatives in other parts of the state. They also provided the project fairly extensive databases of local farms.

Further, the project team visited the following three farms to meet personally with the farmers. This helped the team to get to know the farmers, view their fields, learn about their crops, and develop an understanding of the challenges they face. The three farms were:

White Gate Farm, a New Entry Farm. Six Cambodian farmers are leasing land to grow Asian vegetables and to learn about commercial farming in this country. The farmers have developed markets with local Asian markets and some restaurants. They are interested in expanding their markets.

Bear Hill Farm. This is an organic farm that sells most of its produce through a CSA (community supported agriculture). They like to grow a wide variety of crops and are very interested in selling specialty ethnic produce. They also do their own composting and are interested in developing relationships with restaurants to obtain vegetable waste. The owners were very generous with their time and gave the project a number of recommendations.

Brox Farm. This farm grows about 90 different crops and is a much larger operation than the other farms, with over 30 employees. This farm has been involved with the Latino crops project at UMass Amherst and is interested in selling to local restaurants. David Demaresq, who runs

this farm, has stood out as a leader among farmers and within the local community. He has demonstrated strong interest in this project and was able to attend the farmer-restaurant meeting in November.

Evaluation

The evaluation of this project focuses on three areas outlined in the proposal:

1. Were the seven target objectives on time and on task?

Yes, the target objectives were met as described above.

2. Were the deliverables developed in a fashion that was useful to growers, restaurant owners, and other partners?

Both restaurant owners and farmers with whom the project has been in touch found the marketing study of great interest. The restaurant/farmer participants who attended our joint meeting found it very useful. However, the majority of restaurant owners and farmers were unable to attend this meeting due to conflicting schedules.

3. What kinds of obstacles or barriers were encountered that provide lessons for other partnerships that are seeking to obtain information that is useful to the many migrant communities in areas of high urban growth.

A key obstacle and barrier relates to our target group of immigrant restaurant owners. There were obviously language and communication barriers that made it difficult to communicate the goals of the project and involve them in our efforts. Whereas immigrant restaurant owners depend on long-standing personal relationships in order to conduct business, the project lacked the long-term relationships with most of these restaurant owners. Consequently, future projects will need to focus considerable energy and time in developing and nurturing these relationships. The project lacked a key liaison person who had existing relationships and credibility with both farmers and restaurant owners. This was a key barrier that made it challenging to create links between area farmers and ethnic restaurant owners.

Lessons and Current or Future Benefits

The heart of this project has been to build relationships among a diverse group of people. Language and communication are important issues and translators may often be needed. Brevity, clarity, and patience have been important in our interactions.

An even more important lesson is that a great deal of time is needed to develop relationships. Many members of the immigrant community base their business dealings on personal relationships. For example, one of the restaurant owners said that he buys produce from a particular farmer because that farmer had made the effort to come visit him and get to know him. Thus, future such efforts will need to plan substantial time for the participants to get to know each other.

Another important lesson for this work is that it may be unrealistic to expect that many of the mom and pop ethnic restaurants will be willing or able to buy local from long-established farmers. A number of these restaurants are operating with very thin margins and appear to not find it feasible to pay more for local crops. However, the project found that some of the Asian restaurants are buying produce from the New Entry Asian Farmers. The project team believes that the commerce between Asian restaurants and farmers will continue to grow.

As a next step, the project is exploring possibilities for producing a directory of farms and restaurants using internal University resources. This directory will be based on the information gathered for this project. Larger sources of funding are also being investigated for the next couple of years.

The marketing study, the meeting, and other interactions all indicate interest in developing linkages among local farms and restaurants. The iterative linkage model developed in this project focuses on building relationships to discover opportunities. Providing opportunities for building these relationships will be important components of the next phases of this project. Educational and marketing programs that emphasize the importance and advantages of buying locally appear to offer a great deal of potential. Examining ways to expand the growing season either through the types of crops grown or techniques such as hoop houses are also possibilities.

Appendices

Appendix A: Marketing Report

Appendix B: Cost Analysis for Produce

Appendix C: The Food Cycle Model

Appendix D: Notes from Meeting with Farmers and Restaurant Owners

Appendix E: List of Products and Specialty Foods

The Food Cycle

Findings from a marketing study conducted by the

University of Massachusetts at Lowell's
Center for Family, Work, and Community
and the
Lowell Center for Sustainable Production

By Brett Romanoski

May, 2002

I. Project Description/Background

This report includes findings from the research done both by the UMass-Lowell Center for Family, Work and Community, and the Lowell Center for Sustainable Production, of a marketing analysis of the viability of bringing farmers and local ethnic restaurant owners together in a supply-demand relationship focused on specialty food. The research was done to assess the viability of addressing the unmet needs of the many ethnic restaurants in Lowell, to obtain their specialty produce locally, in a timely manner, and at a reasonable cost. Further, this research was done to both understand the needs of both communities and to identify strategies for bringing together ethnic restaurant owners in the Lowell area with immigrant and other farmers in the region that would serve each and would at the same time promote environmental sustainability.

Both Centers at UMass-Lowell, the Center for Family, Work, and Community, and the Lowell Center for Sustainable Production, have come together on this project to identify ways that the University, through its emphasis on environmental issues, could better meet the economic development needs of the Merrimack Valley Region.

Objectives: The basic objectives of this project are 5-fold.

- Identify the types and quantities of products and specialty foods that can be marketed to local restaurants.
- Confirm interest and skill level on the part of various regional growers to supply specialty foods.
- Identify interest in which the nutrient cycle (composting of restaurant waste could be used to make fertilizer for farms and gardens) could be used to support these efforts.
- Increase the base of marketing information and options for small-scale, limited resource farmers that will help improve their ability to enter ethnically diverse markets such as Lowell.
- Involve the restaurant community in understanding and participating in the importance of food growing and the nutrient cycle.

II. Surveys

With these objectives in place, the means of gathering information from both farmers and restaurant owners was to develop survey questionnaires on specialty produce needs, quantities, providers, pricing, and constraints. The survey questions for both parties were developed on the principles from Neil Rackman's "The SPIN Selling Fieldbook" (SPIN). The questions in each survey were SPIN selling questions. S (Situational) questions were used to clarify and fill in holes, as well as gain background and facts that would uncover implied needs of both groups and deliver them into specific needs; P (Problem) questions were used to uncover problems, difficulties, or dissatisfactions that both buyers and sellers have with their existing situations; I (Implication) questions were used to build a significance of the problem into a clear, strong, desire for the products; and finally, N (Need/Payoff) questions focused on the value of the solution and provides a solution to the most important problems.

After the surveys were developed, they were pre-screened with existing participants in the project to assess their validity, objectivity, and relevance. The last task before the administering of the surveys was to compile a list of both farmers in the region and ethnic restaurant owners in the city of Lowell.

A list of farmers in the region came from both David Webber of the Massachusetts Department of Food and Agriculture and Paul Fischer of the US Department of Agriculture Farm Service Agency. Once compiled, the list included 238 farms throughout the state of Massachusetts. That list was then narrowed down to farms within 30 miles of Lowell for logistical purposes. That list included 31 farms. After talks with Paul Fischer and Sophy Roth Sun, members of the New Entry Sustainable Farming Project (NESFP) were included because it was thought that they were perfect candidates to participate in this project. The New Entry Sustainable Farming Project is a partnership effort designed to help recent immigrants with a background in agriculture to establish themselves as commercial farmers in New England. In the end, 31 farms were contacted and 19 surveyed.

A list of restaurants was compiled several different ways. The first way was using a list that already existed and was on file at the Center for Family, Work, and Community. The second way was by going on-line to a restaurant page for the city of Lowell and typing in various ethnic cuisines such as African, Brazilian, Laotian, and Latino. The third way was by simply going through the Lowell phone book and looking for the aforementioned different cuisines. Forty-two ethnic restaurants were identified and 20 were surveyed. The 20 that were surveyed were targeted because they appeared to serve high volumes of people, which would ensure that changing their supplier was commercially viable, and also because they already had a knowledge of the project.

III. Key Findings

Farmers

- The majority of the farmers grew vegetables and some grew a variety of fruits. The most common produce items grown were tomatoes, corn, squash, and lettuce.
- Out of the possible choices for farmers customers, 14 had only one outlet to customers
 - 4 sold to farm stands
 - 5 sold at farmers market
 - 4 sold to local supermarkets, both commercial and ethnic
 - 1 sold directly to the customer
- The others sold to a number of different outlets
 - 2 sold to farm stand and restaurants
 - 1 sold to farm stands and at the farmers market
 - 1 sold to a wholesaler and farm stand
 - 1 sold to farm stand and supermarket
- Interested in selling to new markets
 - 68% said yes
 - 32% said no
- Ease or difficulty to grow crops
 - 61% easy
 - 16% moderate
 - 22% difficult
- Any crops they just couldn't grow
 - 50% said yes, and named the crops
 - 50% said no, either because they've never tried or haven't had any difficulty with trying so far
- Interested in growing a few quick return crops of specialty produce
 - 61% said yes
 - 22% said possibly or maybe
 - 16% said no
- Farms ranged in size from 1½ acres to 200 acres and varied on whether or not they were at full capacity.
 - Challenges they faced
 - 55% said weather was the #1 challenge
 - others included rain, irrigation, land space, labor, and time constraints.
 - Possibility of sharing or leasing their land
 - 5 of the farmers were already leasing their land and were in the N.E.S.F.P.
 - 11 said no
 - 1 said yes
 - 1 said maybe
 - Interested in specializing in a few quick return crops to be provided to restaurants
 - 66% said yes
 - 5% said maybe
 - 27% said no
 - Their ability to market their products.
 - 83% Very well, they said they do it easily
 - 11% Not well
 - 5 % said moderate

This is how the results were tabulated. While these questions varied in depth and complexity, three specific questions were most important for assessing whether or not linking farmers to ethnic restaurant owners could be viable:

1. Whether or not they are interested in selling to new markets, 68% said yes. If we match some of those that said yes to their size, several of the biggest farms on the list have said yes. That would make selling to new markets (specifically to restaurants) a viable option for them.
2. Whether farmers are interested in growing a few quick return crops of specialty produce, 61% said yes, meaning they would be able to provide for the high demand that the restaurant would need.
3. In selling the specialty produce to restaurants, 66% said yes. If we match up these respondents to those in the previous two questions, they are just about identical.

The need and desire to sell specialty produce to ethnic restaurants surely exists in the minds of the majority of the farmers.

Restaurant Owners

The majority of restaurants were either Latino or Southeast Asian cuisine. Other results follow:

- Current supplier of produce
 - 76% said wholesalers (64% from Boston, either Quincy or Chelsea)
 - 17% locally, from ethnic markets
- Pick-up or delivery mode
 - 47% pick-up
 - 35% delivery
 - 17% pick-up and delivery
- The majority, with one exception, order the same thing every week.
- Customers served in a week
 - 17% between 1,000 and 3,000
 - 23% between 400 and 800
 - 35% between 300 and 400
 - 23% between 100 and 200
- A list of produce items was provided to the owners, and they checked off the type of vegetables they purchased and the quantities they bought. Sizes included cases, pounds, bundles, dozens, heads, boxes, and bushels.
- Satisfaction with the freshness of the produce
 - 94% said yes, they were satisfied
 - 5% said no, they weren't satisfied
- Crops that don't ship well
 - 29% said some don't ship well
 - 70% said they all ship well
- Difficulty in finding specific produce for dishes
 - 11% said yes
 - 70% said no
 - 17% said sometimes
- Frequency of problems arising
 - 58% never
 - 17% rarely
 - 11% not often
 - 11% sometimes
- Satisfaction with provider of produce
 - 100% were satisfied
- A list was given to restaurant owners to rate certain aspects that their suppliers of produce should have.
 - 58% most important was quality and freshness
 - 23% second most important was price
 - 17% said all were equally important
 - reliability and closeness to supplier were often second and third on the list of importance
- Inclined to do business with suppliers closer to restaurant
 - 73% said yes
 - 11% said no
 - 5 % maybe

- two restaurants were not applicable because they already buy close to Lowell
- Buy from a farmer if quality, freshness, reliability, and decreased delivery time were guaranteed
 - 75% said yes
 - 12% said no
 - 12% possibly
- Could a higher price be reflected by the above guarantees
 - 52% said yes
 - 47% said no
- Importance to support local agriculture
 - 11% said very important
 - 47% said important
 - 29% said somewhat important
 - 5% said not important
 - 5% said not sure
- Separate food waste from other waste
 - 58% said yes
 - 41% said no
- How much paid for trash pick-up
 - 41% said their landlord takes care of it
 - the rest pay between \$130 and \$250 a month
- Interested in learning about composting
 - 58% said yes
 - 11% already do it
 - 25% said no
 - 5% depends on the landlord

Again, the survey questions were designed to gather information, but five specific questions can be looked at to see if there exists a potential to have these restaurant owners buy from local farmers.

1. One question that was asked that might seem disappointing in terms of finding links at first would be whether or not restaurant owners were satisfied with their current provider of specialty food produce. 100% of the restaurants were indeed satisfied with their current provider of produce.

The next three questions were definitely confidence inspiring in terms of whether or not links could be made:

2. If suppliers were located closer to the restaurant, 73% said they would be more inclined to do business with them. 11% said no and .05% said maybe. Those that said yes, include both those who pick-up and those who get the produce delivered.
3. Asked if they would buy from a local farmer if they could guarantee the important aspects of quality, freshness, reliability, availability, and closeness to the restaurant, 75% said yes, 12% said possibly, and 12 % said no. The majority of these restaurants, even those with long-standing relationships with current providers of produce, would switch to a local farmer if they could guarantee those things.
4. Price was a touchy issue. When asked if a higher price could be reflected in those guarantees, 52% said yes, while 47% said no. Farmers would most likely have to offer equal prices as well as the guarantees in order to become their supplier of produce.
5. Lastly, the majority of restaurant owners said that supporting local agriculture was important. The only variances in that was the degree to which they thought it was important. Only one restaurant felt it was not important, and one was not sure

These questions imply that indeed it is viable to get restaurant owners to buy from local farmers. Both the need and the interest are there.

IV. Opportunities/ Recommendations

As seen from the results of the survey, the interest in building these links exists in both groups. However, in order to begin to implement this, each group will have to have a set of tactical implications that can be offered for a mutual beneficial partnership.

Implications for Restaurant owners:

- Local farmers can provide fresher, better looking crops.
- Local farmers would be very sensitive to consumer interest and values and will remain so to be competitive.
- Packaging, communication, and distribution are all things that local farmers would be better able to handle over current providers because of the importance of the partnership.
- Buying from local farmers will allow restaurants to obtain readily available specialty food services more easily, while contributing to local agriculture.

Implications for Farmers:

- Specializing in a few quick return crops to be sold to restaurants is economically viable.
- Selling specialty produce to ethnic restaurants will benefit farms interested in new markets.
- Lowell's location in a valley of many small farmers offers an opportunity to produce specialty vegetables at local farms.
- In addition to restaurants, farmers could also look at local ethnic supermarkets as new potential customers. These markets are numerous in Lowell due to the vast cultural make-up of the city. However, this project did not cover those establishments and therefore lacks the information needed to assess that viability.

On paper, building the links between these two parties is very viable. However, there are some data missing. Pricing issues were too varied and fluctuated too much to get exact figures and quantities, both from farmers and from restaurant owners. Before these two parties meet, a cost analysis should be done to help better understand the prices and quantities being both sold and bought. Prices ranged and changed very drastically and rapidly, and therefore these numbers were difficult to obtain, from both parties. A cost analysis should be done where price is the only piece of information gathered. After that, in correlation and cooperation with this study, farmers and restaurant owners can be brought together to discuss steps for implementing the new partnership.

Both parties should meet in a focus groups whereby a leader can be identified from each group and can be asked to help in implementing the strategy. Prices can be discussed and a distribution system can be identified. Certain farmers will be better suited to supply certain restaurants because they grow the type of produce that the restaurant needs, and those links can be seen when the surveys are cross referenced for types of produce grown (by farmers) and types of produce bought (by restaurant owners).

So it is the findings of this project that there is an interest by both of the mentioned parties to build links that will lead to a mutually beneficial partnership.

Survey Questions for Farmers

1. What kinds of products do you currently grow now?
2. Who do you typically market these products to and who typically buys them? (restaurants, wholesalers, people at farm stands)
3. Which crops do the best in these markets?
4. Are you interested in selling to new markets?
5. How easy or difficult are these products to grow?
6. Are there any crops that you just cannot grow?
7. Because of the short growing season would you be interested in growing a few quick return crops of specialty produce?
8. What is your current growing capacity, or how much of your land is being used to grow produce?
9. What are some of the challenges that accompany raising niche crops in this region?
10. Would sharing or leasing your land to farmers that grow specialty produce items for specific markets interest you?
11. Is specializing in a few quick return crops to be provided to local ethnic restaurant owners something that interests you?
12. How well are you able to market, sell, or connect the produce with business owners?

Survey Questions for Restaurant Owners

1. Who is your current provider of vegetables to your restaurant?
 - ❖ Wholesaler, local market, local grower, other.
2. Are these agricultural products delivered or do you go out and buy them?
 - ❖ If delivered, how often are deliveries?
 - ❖ If you purchase them, how often do you do so (daily, weekly, monthly)?
3. How long have you been doing business with them?
4. What is the length of time between placing an order and receiving the order?
5. About how many customers do you serve in a week?
6. Which of these items do you use in your meals and what quantities do you buy them? (see back)
7. Is the produce you purchase as fresh and priced as you would like it to be?
8. Are there any crops that don't ship well in terms of remaining fresh?
9. Do you have difficulty finding and purchasing any particular item that is necessary for one of your dishes?
10. How often do problems occur or difficulties arise in dealing with your current provider of produce?
11. How quickly are your providers to remedy such problems?
12. Are you satisfied with your current provider of specialty food produce?
13. Rate the following in order of importance (1=most important, 7=least important)
 - ___ price
 - ___ quality/freshness
 - ___ delivery time
 - ___ reliability
 - ___ bargaining power with suppliers
 - ___ availability of agricultural products
 - ___ closeness to supplier
14. If your suppliers were located closer to your place of business, would you be more inclined to do business with those suppliers?
15. Would you buy your products from a local farmer if they could guarantee the ability to control the quality of agricultural products, increase reliability, and being able to cut down on delivery time?
16. Could a higher price for produce be reflected in the value added by assurance and guarantee of quality, reliability, availability of scarce resources, and increased bargaining power with suppliers?
17. How important is it for you to support local agriculture?
18. Do you currently separate food waste from other waste?
 - ❖ What do you pay for trash pickup?
 - ❖ Have you thought about composting organic food wastes to both help the environment and cut disposal costs of your restaurant?

Appendix B

Cost Analysis for Produce

Based on the few restaurants that cooperated openly, the following are the price ranges of common products:

Winter melon	10 for \$7
Bitter melon	box \$15 – 20
Long eggplant	box \$6
Asian pickling cucumber	box \$10-15
Spinach	\$2.50 lb
Asian basil	\$2.50 lb
Cilantro	\$1 bunch
Lemongrass	box \$20-35
Chinese broccoli	\$40 box 40lb
Green peppers	\$5-8 box
Tomatoes	box \$6-8
Carrots	box \$8
Lettuce	\$8-10 box
Onions	big bag \$10
Mustard greens	\$6-7 bunch
Fuzzy squash	\$1 each

Appendix C

The Food Cycle Model

We have learned a great deal from our experiences of bringing together ethnic farmers and restaurant owners to link their activities through composting and other strategies. Our model draws heavily from the *Research Cycle Model* developed by Silka as a way to capture all of the temporal elements necessary to establishing and maintaining a partnership among groups with different but potentially overlapping goals.

In the *Research Cycle Model* researchers, community members, and other partners who might eventually carry out research together build steps to a productive partnership by beginning at the very outset to identify the goals of the research (e.g., the goal might be to develop effective interventions to address a problem and thus the research is designed so as to map out intervention possibilities and not merely identify possible causes). The cycle then moves to the collection of information and to the analysis of that information. Here too the focus is on the partnership as it extends over time. In other words, how can the information collection strategy be designed in keeping with the information approaches used by the different partners (rather than being done in a way that simply conforms to an academic model)? The cycle continues in the consideration of how the findings will not only be put into practice but will lead to a new set of questions, gathering of data, and development of new interventions and partnerships. Ultimately the cycle spirals upward to create stronger, more robust methods of partnership and communication.

The *Research Cycle Model* focuses on research. With our *Food Cycle* work we are emphasizing partnerships that build markets, but again our focus is on the stepwise, temporal approach to building those relationships. The end goal is not merely to gather information but rather is also to build partnerships that increase opportunities for success in farming and food retailing among newcomer groups. The cycle involves

- Gathering small amounts of initial data and information about local farming, restaurant, and composting activities so that this information can stimulate discussion about gaps
- Using this information as a starting point for discussions with individuals so that we can see what additional information is needed
- Beginning to formulate a gap analysis that indicates what are the missing kinds of information
- Beginning to formulate a barrier analysis that indicates what are the unique kinds of barriers newcomer farmers and restaurant owners are facing
- Gather information on a one-on-one basis that fills in the gaps and begins to assess the barriers
- Bring that information back to farmers and restaurant owners to again see where the gaps are and barriers lie
- Bring the spiral of activities to the point that clear plans for bringing together farmers and restaurant owners in a productive partnership can be put forward and analyzed
- Start a new cycle that addresses the emerging barriers as the farmers and restaurant owners begin to put the plans into action

A number of features are important to keep in mind about this model.

First, it points to the fact that all of the problems that are likely to emerge can't even be known until many different iterations of information gathering take place. The challenges and barriers need to emerge in the context of the partnership so that these barriers don't derail the activities or potential for building markets that can be successful.

Second, this approach assumes that relationships need to be established separately with the farmers and the restaurant owners, but with the aim of finding identifiable links.

Third, this approach assumes that most of the efforts will not be direct. The indirect, spiraling quality best captures the strength of bringing together people who have had a variety of experiences in owning restaurants and farming in different countries.

Appendix D
Foodcycle
Notes from Meeting with Farmers and Restaurant Owners
November 26, 2002

RESPONSES:

Price main issue

- Of actual product
- Other elements of price
- Are restaurants willing to pay higher price?
- Hard to get better price – competition – all want lower price

Logistics an issue

- Delivery has to be economically feasible

Composting issue

- Space
- Educate workers

Educate general public, then more willing to pay

- Re local produce – i.e. heirloom tomatoes
- Through farmers markets
- Youth – new ventures - pilots

Three main items:

- Tomatoes
- Onions
- Lettuce

But only grow in summer in N.E. but can grow in greenhouses (quality?)

Concepts in report not new, but **building relationships with farmers and restaurant owners important** – look at strategies for building relationships (liaison, phone calls, meetings in January/February when less busy directly between Chef and Farmer) – farmers need to know what restaurants will purchase

STRATEGIES:

Ways of **preserving** crops in summer for year round use

Extending seasons: 1) grow crops that do well up to frost i.e. kale; 2) hoop house to extend to end of year; and 3) composting operation that produces heat – hoop house over heat.

Promote certain crops and seasonal produce

Restaurants need to see **quality** first before asking for commitment to buy

References from other restaurants (liaison to come to all local restaurants and get list of what they need)

NEXT STEPS:

Directory of local farms

City involved with **education** – education before price

Create **market** for good quality produce

Need **hard data** on usage – another level of research on pricing, purchasing practices and markets

Promote **local** campaign

Appendix E
List of Products and Specialty Foods
(Based on information from restaurant owners and New Entry Farmers)

Asian celery
Asian okra
Basil - Asian
 Holy
Bitter melon tips
Blackberries
Cabbage
Carrots
Cauliflower
Chives
Cilantro
Corn
 - Baby corn
Cucumbers
Edible flowers
Fish cheek mint
Gourds
Hmong herbs
Kale
Lemongrass
Lettuce
Long eggplants
Melons - Wintermelons
 Bitter melons
 Water melons
Mint
Moe manh (pickle spice)
Mustard greens
Onions
Parsley
Pea tendril tips
Pepper leaves
Peppers - Bell peppers
 Chili peppers
Pigweed
Potatoes
Pumpkin tips and flowers
Raspberries
Squash
Strawberries
String beans
Taro stems and leaves
Taro roots
Tomato and tomato leaves
Water Spinach
Winter melon tips